

VHF FIELD STRENGTH INDICATOR

47 to 225 mc

Uses

The VHF Field Strength Indicator is a compact test instrument used for surveying the field strength of transmitters in the VHF range. Its uses are many. The propagation conditions of a transmitter, for example, and hence the most favourable site for a transmitter aerial, can be determined. In the case of receiving, and especially television, aerials for which the best site can often only be found by trial and error, a quick and satisfactory result can best be obtained using the Field Strength Indicator. The Type HUZ is also suited for monitoring transmitters, approximate direction finding, and, among other laboratory applications, for detection of interfering oscillators. Connection of a probe permits the testing of interference, for example, in vehicle interference suppression. The wide frequency range of the Field Strength Indicator Type HUZ covers VHF broadcasting, television (Bands I and III), aircraft radio, police radio and speech communication between fixed and mobile stations. Owing to its compactness and light weight, the instrument is easily portable and can be used under even the worst conditions.

Description

The instrument is a highly sensitive superheterodyne receiver for AM and FM with an a-f amplifier and piezo-electric loudspeaker. The aerial, a dipole of adjustable length, telescopes down into the instrument when not in use. Indication of the field strength is achieved by measurement of the AGC voltage in a two-valve bridge circuit; calibration is possible with the aid of a built-in standardizing oscillator operating at the middle of the frequency range. After disconnection of the aerial, the instrument may also be used for voltage measurement; an unbalanced 60- Ω and a balanced 240- Ω input have been provided for this purpose. The instrument operates from gas-tight, built-in storage batteries which can be recharged by a transistorized Trickle Charger Type BN 150126. Capacity after recharging 6 to 7 hours. The trickle charger can readily be used for permanent buffering and hence for a-c supply operation of the Field Strength Indicator.

Valve complement: 1 x DC 70, 2 x DF 96, 6 x DF 906, 1 x DL 96,
1 x 5672, 2 transistors



► Order Numbers

VHF Field Strength Indicator Type HUZ	BN 15012/2
Tape Measure	ZB 899 *
Trickle Charger for Type HUZ	BN 150126
Probe for Type HUZ	BN 150127
Leather Carrying Case for Type HUZ	BN 150128
Spares (extras)	
Aerial Assembly with Dipole for Type HUZ	BN 15012-8
Pair of Dipole Rods for Type HUZ {	BN 15012-8.10 BN 15012-8.11

* The tape measure is so facilitate the exact erection of the dipole to the correct wave length and is included in the order number BN 15012/2.

VHF FIELD STRENGTH INDICATOR HUZ

Specifications

(Order Numbers see over)

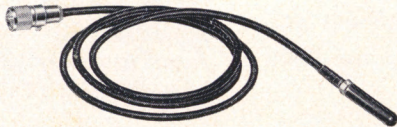
Frequency range	47 to 225 mc
Single-range drum dial 1.5 m long. About 8 mm on its scale represent 1 mc.	
Indication of the VHF input voltage	nearly logarithmic
Range 1	1 μ v to 1 mv
Range 2	1 mv to 100 mv
The readings to be multiplied by a factor k of approx. 1 to 3, according to the frequency.	
Range of field strength indication	corresponds to the range of voltage indication in μ v/m or mv/m
The readings to be multiplied by a factor k' of approx. 1 to 12.	
Accuracy	± 6 db
Demodulation	for AM and FM, switch-selected
Measurements of vehicle interferences according to CISPR* recommendations:	
Charge time constant	1 msec, approx.
Discharge time constant	500 msec, approx.
Overdrive threshold in pulse measurement dependent upon pulse repetition	reading of about 1 mv more than 400 cps reading of about 100 μ v at 70 cps reading of about 10 μ v at 20 cps
Aerial	tunable dipole, built in
VHF inputs	(a) 60 Ω unbalanced, coaxial socket (83-1 R) (b) 240 Ω balanced, twin-contact connector (3 mm dia., 12 mm between contacts)
IF bandwidth	about 100 kc
Standardizing oscillator	about 105 mc
Loudspeaker built in, phone sockets provided.	
Power supply	from built-in, gas-tight storage batteries
Charging with Trickle Charger for Type HUZ BN 150126 from a-c power supply	115/125/220/235 v, 47 to 63 cps (15 va)

Instrument	Dimensions	Weight
VHF Field Strength Indicator Type HUZ	250 x 210 x 120 mm	4 kg
Trickle Charger for Type HUZ	140 x 100 x 96 mm	1.6 kg
Leather Carrying Case for Type HUZ	300 x 300 x 160 mm	

* Comité International Spécial des Perturbations Radioélectriques.



Trickle Charger for Type HUZ,
BN 150126



Probe for Type HUZ,
BN 150127



Leather Carrying Case for Type HUZ,
BN 150128

We reserve the right to make any departures from this specification, especially those considered desirable for reasons of improved design.